

Replacement Sheet

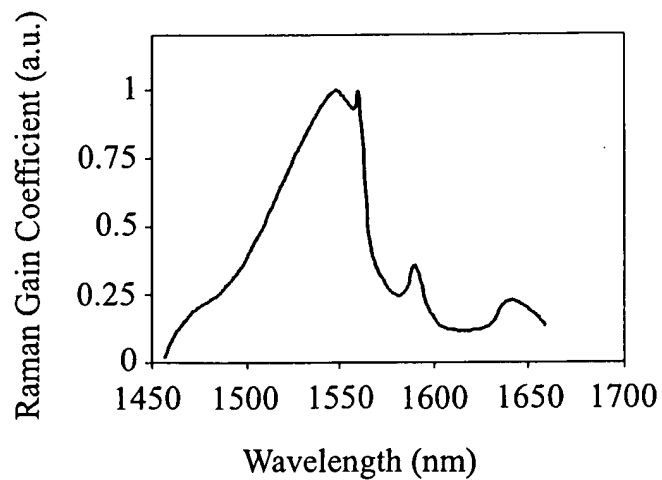


Fig. 1 - Normalized Raman Gain Spectrum of standard single mode fiber. Pump wavelength is at 1450 nm.

Prior Art



Replacement Sheet

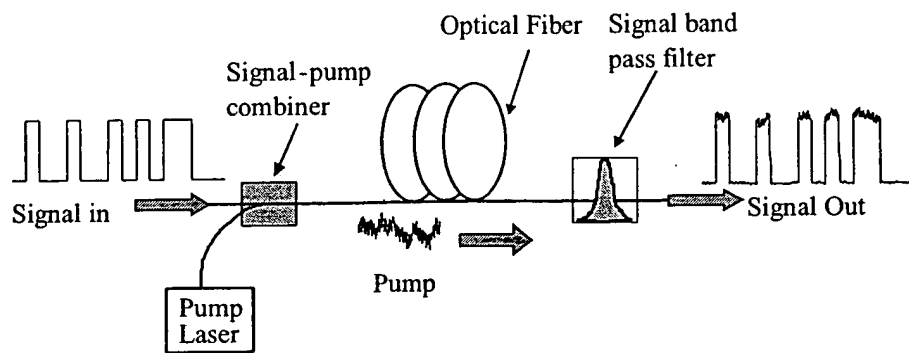


Fig. 2 - Distributed Raman amplification using forward pump (co propagating pump and signal). The noise of pump and signal beams are schematically drawn.

Prior Art

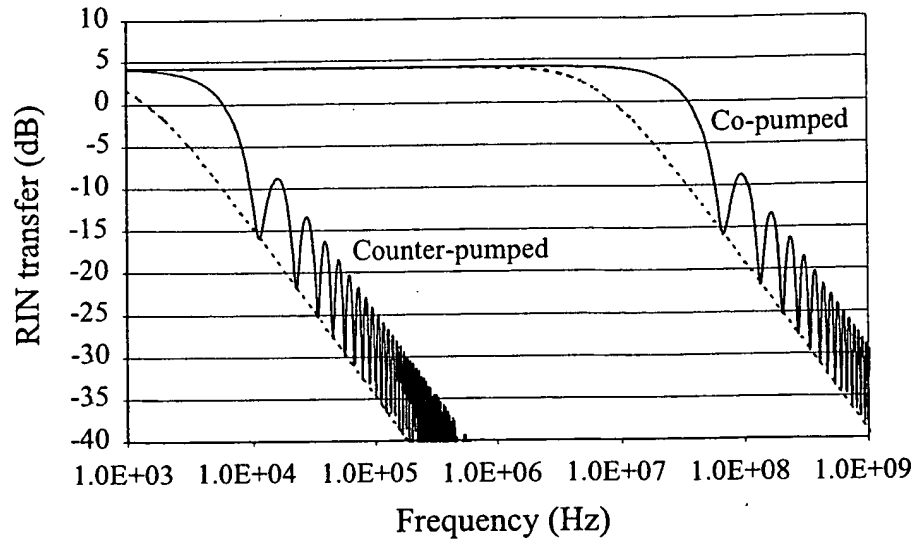


Fig. 3 - RIN transfer spectrum for a co- and counter-pumped Raman amplifier with 10 dB of gain. Pump attenuation = 0.29 dB/km, length = 10km (solid line) and 80km (dotted line), dispersion = $15.6 \text{ ps.nm km}^{-1}$, pump at 1455 nm and signal at 1555 nm [5].

Prior Art

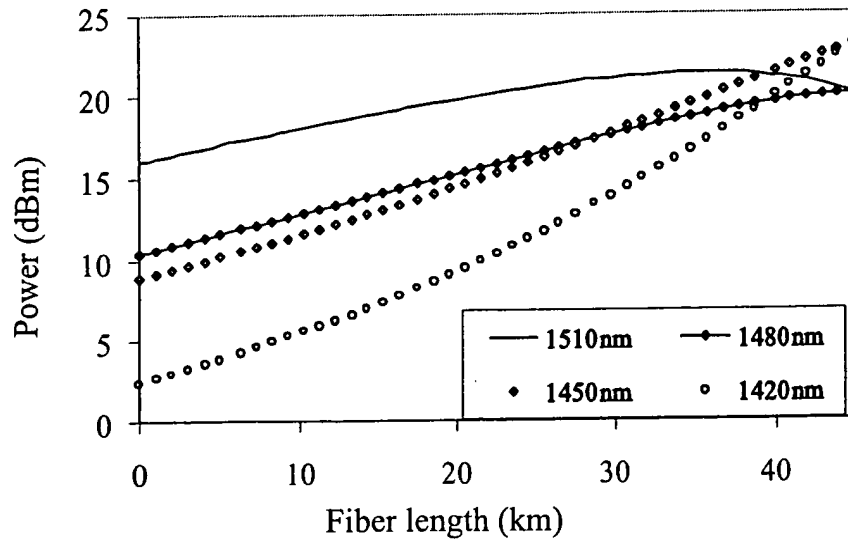


Fig. 4 - Power evolution of pump diode lasers along the fiber path. The pump wavelengths are: 1420 nm, 1450 nm, 1480 nm and 1510 nm. The longer wavelength pump (1510 nm) is amplified by short wavelength pumps.

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